10/645331

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Intellectual Property Law



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Bruce S. Itchkawitz, Ph.D. bsi@kmob.com

September 7, 2006

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Re:

Title: METHOD OF MEASURING

A PHYSICAL FUNCTION USING

A COMPOSITE FUNCTION

WHICH INCLUDES THE PHYSICAL

FUNCTION AND AN ARBITRARY

REFERENCE FUNCTION

Letters Patent No. 7,050,169 B2

Issued: May 23, 2006

Our Reference: STANF.131CP2

CERTIFICATE OF MAILING

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

September 7, 2006

(Date) //

Bruce S. Itchkawitz, Reg. No. 4/1,

Dear Sir:

Enclosed for filing is a Certificate of Correction in connection with the above-identified patent.

As the errors cited in the Certificate of Correction were incurred through the fault of the Applicant, enclosed is our check in the amount of \$100. Please charge any additional fees to our Deposit Account No. 11-1410.

Respectfully submitted,

Knobbe, Martens, Olson & Bear, LLP

SEP 1.4 200c

of Correction

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San Diego

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Enclosures

PATENT NO.

: 7,050,169 B2

Page 1 of 8

APPLICATION NO.

: 10/645,331

ISSUE DATE

: May 23, 2006

INVENTORS

: Aydogan Ozcan et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Page 2, Col. 1 ("U.S. Patent Documents"), line 15, after 6,650,486, delete -- **B1** -- and insert -- **B2** --.

On Page 2, Col. 1 ("U.S. Patent Documents"), line 16, after 6,856,393, delete -- **B1** -- and insert -- **B2** --

On Page 2, Col. 1 ("Other Publications"), line 9, delete - - technique - - and insert - - technique - -.

On Page 2, Col. 1 ("Other Publications"), line 18, after Ozcan, delete - - A. - - and insert - - A., - -.

On Page 2, Col. 2 ("Other Publications"), line 7, delete - - Search." - - and insert - - Search." - -.

On Page 2, Col. 2 ("Other Publications"), line 8, delete - - Marker - - and insert - - Maker - -.

On Page 2, Col. 2 ("Other Publications"), line 14, delete -- (1988), -- and insert -- (1998), --.

On Page 2, Col. 2 ("Other Publications"), line 29, after SPIE, insert --, --. [comma]

On Page 2, Col. 2 ("Other Publications"), line 48, delete - - Fringes - - and insert - - fringes - -.

On Sheet 2 of 39, Box 140 (Fig. 2), Line 1, delete -- NONLINEARITY -- and insert -- NONLINEARITY --.

In Col. 2, line 30, delete -- $f(\theta n_1, n_2)$ -- and insert -- $f(\theta, n_1, n_2)$ --.

In Col. 4, line 51, delete - - obtaines - - and insert - - obtains - -.

In Col. 8, line 64, delete - - n. - - and insert - - n. - -.

In Col. 9, line 1, delete - - n. - - and insert - - n. - -.

In Col. 9, line 43, delete - - 20 180° - - and insert - - 20 at 180° - -.

In Col. 15, line 45, delete - - LG - - and insert - - L_G - -.

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DOCKET NO. STANF.131CP2

PATENT NO.

: 7,050,169 B2

Page 2 of 8

APPLICATION NO.

: 10/645,331

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In Col. 15, lines 57-58 (approx.), delete Equation 8 as set out in the patent grant, and insert

$$--MF_{S1} = |D^{S1}(f)|^2 = |D_A(f) - D_B(-f)|^2 = ||D_A(f)|e^{j\phi_A(f)} - |D_B(f)|e^{-j\phi_B(f)}|^2 - -.$$

In Col. 15, line 60 (approx.), delete Equation 9 as set out in the patent grant, and insert

$$--MF_{S2} = \left|D^{S2}(f)\right|^2 = \left|D_A(f) + D_B(f) \cdot e^{-j2\pi jL}\right|^2 = \left|D_A(f) \cdot e^{j\phi_A(f)} + D_B(f) \cdot e^{j[\phi_B(f) - \phi_0(f)]}\right|^2 - -.$$

In Col. 15, line 64 (approx.), delete -- MF_{S1} and MF_{S2} -- and insert -- MF_{S1} and MF_{S2} --.

In Col. 15, line 65, delete Equation 10 as set out in the patent grant, and insert

--
$$MF_{S1} = |D_A|^2 + |D_B|^2 - 2|D_A||D_B|\cos(\phi_A + \phi_B)$$
 --

In Col. 15, line 67 (approx.), delete Equation 11 as set out in the patent grant, and insert

$$--MF_{S2} = |D_A|^2 + |D_B|^2 + 2|D_A||D_B|\cos(\phi_A - \phi_B + \phi_0) - -.$$

In Col. 16, line 24 (approx.), delete Equation 14 as set out in the patent grant, and insert

$$--\phi_A + \phi_B = 2\pi \cdot m \pm \left|\cos^{-1}\left(\frac{\alpha}{\Delta}\right)\right| - -.$$

In Col. 19, line 9 (approx.), after magnitude, insert - - of - -.

In Col. 19, line 24 (approx.), after magnitude of, delete - - (i.e., the Fourier transform magnitude of --.

In Col. 20, line 1, delete - - y - - and insert - - yield - -.

In Col. 20, line 18 (approx.), delete - $|2D_A|P_1$ and $|2D_A|P_2$ -- and insert -- $|2D_A|P_1$ and $|2D_A|P_2$ --.

In Col. 20, line 24 (approx.), delete the equation following the word **measured** and before the word **data**, and insert -- $MF_1(f) = |D_A(f)|^2$ --.

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DOCKET NO. STANF.131CP2

PATENT NO.

: 7,050,169 B2

Page 3 of 8

APPLICATION NO.

: 10/645,331

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In Col. 21, line 31, delete the equation following the words **Equation 2**, and insert $-MF_{S1} = 4|D_A|^2 \sin^2(\phi_A) - -$.

In Col. 21, line 44, delete the symbols following i.e., and insert - $MF_{S1} = 4|D_A|^2 \sin^2(\phi_A)$ - -.

In Col. 21, line 45, delete the symbols following the word of and before the period, and insert -d(z)-d(-z) is $2j|D_A|\sin(\phi_A)$ --.

In Col. 21, line 53, delete - - dz) - - and insert - - d(z) - -.

In Col. 21, line 58, delete - - nonlinearity - - and insert - - nonlinearity - -.

In Col. 23, line 30 (approx.), delete -- dS2(z), -- and insert -- $d_{S2}(z)$, --.

In Col. 23, line 32 (approx.), delete Equation 28 as set out in the patent grant, and insert $--MF_{S1} = |D_A|^2 + |D_B|^2 - 2|D_A||D_B|\cos(\phi_A + \phi_B + \phi_A) - -.$

In Col. 23, line 34 (approx.), delete Equation 29 as set out in the patent grant, and insert $--MF_{S2} = \left|D_A\right|^2 + \left|D_B\right|^2 + 2\left|D_A\right| \left|D_B\right| \cos(\phi_A - \phi_B + \phi_2) - -.$

In Col. 23, line 37 (approx.), delete the equation following the word and, and insert -- $\phi_2(f) = 2\pi f L$ --.

In Col. 23, line 43 (approx.), delete - - MFS_2 - - and insert - - MF_{S2} - -.

In Col. 24, line 8, after MF_B , insert --, --. [comma]

In Col. 24, line 10, delete -z<0 - - and insert $-z \le 0$ - -.

In Col. 26, line 10, delete - - 220,a - - and insert - - 220, a - -.

In Col. 26, line 12, delete - - 230, an - - and insert - - 230, an - -.

In Col. 27, line 41, delete - - $\int_{pump,1}$ - - and insert - - $\omega_{pump,1}$ - -.

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DOCKET NO. STANF.131CP2

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PATENT NO.

: 7,050,169 B2

Page 4 of 8

APPLICATION NO.

: 10/645,331

ISSUE DATE

: May 23, 2006

INVENTORS

: Aydogan Ozcan et al.

In Col. 29, line 22, delete Equation 41 as set out in the patent grant, and insert $-u_{out}(t) \approx u_r(t) * u_r(-t) * u_s(t) e^{j\vec{K}_1\vec{r}} + u_s(t) * u_s(-t) e^{j\vec{K}_2\vec{r}} --.$

In Col. 29, line 64, delete - - product - - and insert - - product - -.

In Col. 30, line 27 (approx.), delete Equation 45 as set out in the patent grant, and insert $--E_{2\omega}(t) = u_{2\omega}(t)e^{j2\omega t} = \eta u_1(t)u_2(t)e^{j2\omega t} = \eta u_1(t)u_1(t-\tau)e^{-j\omega\tau}e^{j2\omega t} --.$

In Col. 30, line 30, delete the symbol following the word where and before the word is as set out in the patent grant, and insert - η - - .

In Col. 30, line 30, after to, delete - - , - -. [comma]

In Col. 30, line 51 (approx.), delete Equation 47 as set out in the patent grant, and insert $-\overline{A}_{PMT \ single}(f) = |\eta|^2 |\overline{I}(f)|^2 - -$.

In Col. 31, line 34, delete - - At - - and insert - - Δt - -.

In Col. 31, line 60 (approx.), delete Equation 50 as set out in the patent grant, and insert $--\overline{A}_{PMT_double}(f) = 2|\eta|^2 |\overline{I}(f)|^2 |1 + \cos(2\varphi(f) - f\Delta t)| --.$

In Col. 32, line 13, delete the symbols following the word **signal** and before the word **recorded**, and insert - $A_{PMT \ single}(\tau)$ - -.

In Col. 32, line 33, delete the symbols following the words magnitude of and before the words (expressed by, and insert - $\bar{A}_{PMT_double}(f)$ - -.

In Col. 32, line 35, delete the symbols following the word **measured** and before the period, and insert $-A_{PMT_double}(\tau)$ --.

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DOCKET NO. STANF.131CP2

PATENT NO.

: 7,050,169 B2

Page 5 of 8

APPLICATION NO.

: 10/645,331

ISSUE DATE

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: Aydogan Ozcan et al.

In Col. 32, line 36, delete the symbols following the word measured and before the words is a, and insert -- $A_{PMT\ double}(\tau)$ --.

In Col. 32, line 38, delete the symbols following the word **signal** and before the word **measured**, and insert - $A_{PMT \ single}(\tau)$ - -.

In Col. 32, line 41 (approx.), delete the symbols following the word **measured** and before the words (i.e., from..., and insert - $A_{PMT\ double}(\tau)$ - -.

In Col. 33, line 43 (approx.), delete the symbols following the word **transform** and before the words is equivalent, and insert - $\bar{I}_{symmetric}(f)$ - -.

In Col. 33, line 48 (approx.), after -- (i.e., --, delete -- (i.e., --.

In Col. 34, line 13 (approx.), delete $-- su_ch --$ and insert -- such --.

In Col. 34, line 23 (approx.), delete Equation 52 as set out in the patent grant, and insert $-u_s(t) = \widetilde{u}_s(t)e^{j\omega_c t}$ --.

In Col. 34, line 25 (approx.), delete the symbols following the word where and before the words is the, and insert -- $\tilde{u}_s(t)$ --.

In Col. 34, line 28 (approx.), delete Equation 53 as set out in the patent grant, and insert $-u_s(t) = \int \widetilde{U}_s(\omega - \omega_c) e^{j\omega t} d\omega - -.$

In Col. 34, line 31 (approx.), delete the symbols following the word where and before the word denotes, and insert -- $\tilde{U}_s(\omega)$ --.

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DOCKET NO. STANF.131CP2

PATENT NO.

: 7,050,169 B2

Page 6 of 8

APPLICATION NO.

: 10/645,331

ISSUE DATE

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In Col. 34, line 31 (approx.), delete the symbols following the words **transform of** and before the period, and insert - $\tilde{u}_s(t)$ - -.

In Col. 34, line 33 (approx.), delete the symbols following the words with amplitudes, and insert $-\tilde{U}_c(\omega-\omega_c)$ --.

In Col. 34, line 36, delete the symbols following - - (i.e. - -, and insert - - $\widetilde{U}_s(\omega - \omega_c)e^{j\omega t}$ - -.

In Col. 34, line 40, delete the symbols following the word harmonic and before the words at the plane, and insert -- $\tilde{U}_s(\omega - \omega_c)e^{j\omega t}$ --.

In Col. 35, line 26 (approx.), delete Equation 57 as set out in the patent grant, and insert $-u_{2s}(x';t) = \int \widetilde{U}_{2s}(x';\omega,t)d\omega$ --.

In Col. 35, line 47 (approx.), delete Equation 59 as set out in the patent grant, and insert $-u_{total}(t) = (\widetilde{u}_s(t) + \widetilde{u}_s^*(-t - \Delta t))e^{j\omega_c t} - -$.

In Col. 36, line 1, delete the equation following the word **Defining** and before the word **and**, and insert $-\widetilde{U}_s(\omega) = |\widetilde{U}_s(\omega)|e^{j\Phi(\omega)} - -$.

In Col. 36, line 41, delete the symbols following the word function and before the comma, and insert - $\tilde{u}_{\cdot}(t)$ --.

In Col. 36, line 47 (approx.), delete the symbols following the word function and before the words to be characterized, and insert -- $\tilde{u}_s(t)$ --.

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DOCKET NO. STANF.131CP2

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: 7,050,169 B2

Page 7 of 8

APPLICATION NO.

: 10/645,331

ISSUE DATE

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In Col. 37, line 9, delete the symbols following the word function and before the comma, and insert $-\widetilde{u}_{\cdot}(t)$ --.

In Col. 37, line 11, delete the symbols following the word function and before the words can be, and insert -- $\tilde{u}_s(t)$ --.

In Col. 37, line 27 (approx.), delete the symbols following the word function and before the words of any, and insert -- $\tilde{u}_s(t)$ --.

In Col. 38, line 36, delete $- - su_c h - -$ and insert - - such - -.

In Col. 39, line 18 (approx.), delete Equation 66 as set out in the patent grant, and insert $-I_{C2}(t) = I_A(t) + I_B(-t + \tau_2) - -$.

In Col. 39, line 20, delete - - $\mathbf{r2}$ - - and insert - - $\mathbf{\tau_2}$ - -.

In Col. 39, line 53 (approx.), delete the symbols following the word and and before the words a time, and insert - τ is - -.

In Col. 39, line 58 (approx.), delete Equation 68 as set out in the patent grant, and insert $--\left|I_{C}(f)\right|^{2} = \left|I(f)\right|^{2} + \left|I_{Ref}(f)\right|^{2} + 2\left|I_{Ref}(f)\right|I(f)\left|\cos(\phi - \phi_{Ref} + \phi_{0})\right| - -.$

In Col. 39, line 60, delete the equation following the word where and before the words is the Fourier, and insert -- $I(f) = |I(f)|e^{i\phi}$ --.

In Col. 39, line 63, delete the symbols following the word with and before the period, and insert $--\phi_0=2\pi f\tau$ --.

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PATENT NO.

: 7,050,169 B2

Page 8 of 8

APPLICATION NO.

: 10/645,331

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In Col. 40, line 7, delete the symbols following the words transforms of and before the word and, and

insert --
$$[I(f)]^2 + |I_{Ref}(f)|^2$$
 --

In Col. 40, line 11, delete the symbols following the word both and before the word and, and insert

$$--\left[I(f)\right]^2+\left|I_{\mathrm{Re}f}(f)\right|^2\right]--.$$

In Col. 40, line 20, delete the symbols following the word quantities and before the word and, and

insert - -
$$[I(f)]^2 + |I_{Ref}(f)|^2$$
 - -.

In Col. 40, line 31, delete --q) - - and insert $--\phi$ - -.

In Col. 42, line 30, delete - - first-reference - - and insert - - first reference - -.

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